



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,945	12/01/2003	Todd M. Lathrop	03-EDP-175	3631
7590 10/05/2005			EXAMINER	
Martin J. Moran, Esquire Eaton Electrical, Inc. Technology & Quality Center 170 Industry Drive, RIDC Park West Pittsburgh, PA 15275-1032			MCCLLOUD, RENATA D	
			ART UNIT	PAPER NUMBER
			2837	
DATE MAILED: 10/05/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/724,945

Applicant(s)

LATHROP ET AL.

Examiner

Renata McCloud

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-21 is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☒ Claim(s) 12 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/01/2003</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Specification***

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Referring to claim 2, "first circuit", "third circuit"; referring to claim 3, "third circuit" and "forth circuit".

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 2 and 3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 2: The first circuit including a controller and a third circuit is not described in the specification.

Claim 3: Neither a "fourth circuit" or the "first circuit includes a third circuit and a fourth circuit " are described. Also "the first rectifier receiving the first output of the third circuit" is not described in the specification. The "second rectifier receiving the second output of said fourth circuit " is not described. The "the first output of said second circuit

enabling said first rectifier to apply the direct current voltage of the output of said first rectifier to said motor" is not described.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2,3, 10 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2: it is unclear what the third circuit is being that the specification and the drawings refer to the third circuit at being (160) in Fig. 3, which is not included in the first circuit along with a controller.

Claim 3: it is unclear what the third and fourth circuits are

Claim 10 recites the limitation "the pair of the contacts". There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Thomas (US 3781617).

Claims 1,5: a first circuit having first and second outputs (Fig. 1: out from I,II), first and second direction inputs (Fig. 1: into I,II; col. 2:31-37), and first and second position indications (I,II; col. 2: 22-30 ), the first and second outputs having first and second voltages responsive to the first and second direction inputs and the first and second direction indications ; a rectifier (Da,Db,Dc,Dd); a second circuit (S1,S2) having an input energized by one of the first and second outputs of the first circuit, the second circuit having a first output when the input is not energized and a second output when the input is energized, the first output enabling the rectifier to apply DC voltage to the motor at one of a first and second polarity, at least one of the first and second outputs of the second circuit providing a braking action to the motor responsive to removal of one the first and second AC voltages of the first circuit (col. 2:31-60).

Claims 4,7: the ac power source (3) cooperates with the first circuit (4).

Claim 6: the motor is associated with a dual direction transfer mechanism (5/6).

Claim 8: the controller (col. 2:43-44) includes a first and second contact outputs providing first and second direction outputs (4/I,II).

Claim 9: the first and second contact outputs (4/I,II) are connected in series with a common terminal (terminal between I and II) which is adapted to receive an AC voltage (3; also it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It

does not constitute a limitation in any patentable sense. In re Hutchinson, 69 USPQ 138).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas in view of Gross (US 3628112).

Claim 11: Thomas teaches the limitations of claim 5. Referring to claim 11, Thomas does not teach a full wave diode bridge. Gross teaches a full wave diode bridge (33) having a first terminal receiving the output of a first circuit (35/36), a second terminal adapted to receive power (it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchinson, 69 USPQ 138), and third and fourth terminals (+/-) providing a DC power output. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus taught by Thomas to use a full wave diode bridge as taught by Gross in order to converter AC power into DC power.

***Allowable Subject Matter***

10. Claims 14-21 are allowed. Claims 12,13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach or make obvious a control circuit comprising: a first circuit structured to receive an AC voltage, said first circuit including a first output, a first direction input and said first position indication, said first output having a first AC voltage responsive to said first direction input and said first position indication, a second circuit structured to receive the AC voltage from the AC source, said second circuit including a second output, a second direction input and said second position indication, said second output having a second ac voltage responsive to said second direction input and said second position indication; a first rectifier receiving the first output of said first circuit and a ground or neutral of said AC source, said first rectifier providing a DC voltage with a first polarity responsive to the first AC voltage of the first output of said first circuit; a second rectifier receiving the second output of said second circuit and the common or the neutral of said AC power source, said second rectifier providing DC voltage with a second polarity responsive to the second AC voltage of the second output of said second circuit; and a third circuit having

an input energized by the second AC voltage of the second output of said second circuit, said third circuit having a first output when the input thereof is not energized and having a second output when the input thereof is energized, the first output of said third circuit enabling said first rectifier to apply the DC voltage with the first polarity of the output of said first rectifier to said motor, the second output of said third circuit enabling said second rectifier to apply the DC voltage with the second polarity of the output of said second rectifier to said motor, the first output of said third circuit and said first rectifier providing a braking action to said motor responsive to removal of the second AC voltage of said second circuit.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Renata McCloud whose telephone number is (571) 272-2069. The examiner can normally be reached on Mon.- Fri. from 8 am - 5pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2800 ext. 4. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Renata McCloud  
Examiner  
Art Unit 2837

RDM



MARLON T. FLETCHER  
PRIMARY EXAMINER